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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,189	04/08/2004	Kenichi Hasegawa	116-043810	8223
28289	7590	07/25/2005	EXAMINER	
THE WEBB LAW FIRM, P.C. 700 KOPPERS BUILDING 436 SEVENTH AVENUE PITTSBURGH, PA 15219			VARGAS, DIXOMARA	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/821,189

Applicant(s)

HASEGAWA ET AL.

Examiner

Dixomara Vargas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 5-8 and 12-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 9-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>08/12/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election of embodiment from Figures 6 and 7 in the reply filed on 06/03/05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 5-8 and 12-14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 06/03/05.

### *Oath/Declaration*

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

The specification to which the oath or declaration is directed has not been adequately identified. See MPEP § 602.

It does not state that the person making the oath or declaration has reviewed and understands the contents of the specification, including the claims, as amended by any amendment specifically referred to in the oath or declaration.

It does not identify the citizenship of each inventor.

It does not include the notary's signature, or the notary's signature is in the wrong place.

It does not include the notary's seal and venue.

***Priority***

4. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 04/11/04. It is noted, however, that applicant has not filed a certified copy of the JP 2003-107251 application as required by 35 U.S.C. 119(b).

***Specification***

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

6. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification since it appear to be a literal translation into English from a foreign document and is replete with idiomatic errors.

***Claim Objections***

7. Claims 1-4 and 9-11 are objected to because of the following informalities: The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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9. Claims 1-4 and 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. With respect to claims 1 and 9, the recitation “applying RF power of a frequency” is indefinite since it is not understood what applicant meant between the following: Is there a power source for applying a specific current to the RF coil to transmit or receive an RF pulse of a specified frequency? Or does the RF field has a specified frequency? Or does the method have a mathematical relationship between the frequency and the power of the RF coil? Does the method require a specific power supplied to the RF coil in order have the desired frequency? Does the power affect the frequency of the coil?

In addition, the recitation “not affecting measurement” is indefinite since it is not clear if the parameter not affected during measurement is either the frequency of the pulse or the power.

Additional, the recitation “complementarily” is indefinite because it is not understood what feature is being complemented. Correction is required.

b. With respect to claims 2, 3, 10 and 11, the recitation “different from a resonance mode at a measurement frequency” is indefinite. Does the RF coil has different modes depending on the frequency or is there one mode with multiple frequencies or multiple modes with multiple frequencies or the resonance mode changes depending on the frequency? Is there a transmit and receive mode or a frequency for the transmit mode and a frequency for the detection mode? Correction is required.

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10. For the purpose of examination, the claims have been examined as best understood by the examiner. The claims have been interpreted as a RF power source driving the RF coil to transmit or receive an RF pulse at a desired frequency without changing the power applied during the application or reception of said pulse wherein said coil can be used as a coil for transmitting (transmitting mode) or reception coil (reception mode); the desired frequency could be shifted according to the desired pulse to be applied and controlling the power source energy to drive the RF coil in order to avoid the coil to exceed the SAR established by the FDA and provide the coil with the desired pulse at the predetermined frequency. Therefore a 35 USC § 102 rejection follows.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-4 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Hanawa (US 5,343,149 A).

With respect to claims 1 and 9, Hanawa discloses an NMR measurement method comprising the step of: applying RF power of a frequency not affecting measurement of an NMR signal to a detection coil or the RF irradiation coil complementarily (Abstract).

13. With respect to claims 2 and 10, Hanawa discloses said detection coil or the RF irradiation coil has a resonance mode which is different from a resonance mode at a

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measurement frequency for the NMR signal and which does not affect the measurement of the NMR signal (Column 4, lines 11-15).

14. With respect to claims 3 and 11, Hanawa discloses said frequency not affecting the measurement of the NMR signal is shifted from the measurement frequency for the NMR signal by a given frequency and can resonate in the same resonance mode as the measurement frequency for the NMR signal (Column 4, lines 32-45).

15. With respect to claim 4, Hanawa discloses the total amount of RF power applied to the detection coil or the RF irradiation coil is controlled to be almost constant irrespective of whether the RF power of the frequency necessary for the measurement of the NMR signal is applied or not (Column 4, lines 61-67).

### *Conclusion*

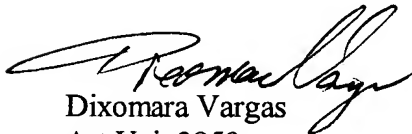
16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional prior art cited in the PTO 892 discloses imaging systems with power control means to drive the RF coil for applying the desired pulse at a predetermined frequency.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dixomara Vargas whose telephone number is (571) 272-2252. The examiner can normally be reached on Monday to Thursday from 8:00 am. to 4:30 pm..

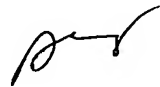
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dixomara Vargas  
Art Unit 2859  
July 20, 2005



Diego Gutierrez  
Supervisory Patent Examiner  
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